

IXPE – The Imaging X-ray Polarimetry Explorer.

Brian Ramsey for the IXPE Team

NASA/Marshall Space flight Center
Huntsville, Alabama, USA

The Imaging X-ray Polarimetry Explorer (IXPE) is a Small Explorer Mission that will be proposed in response to NASA's upcoming Announcement of Opportunity. IXPE will transform our understanding of the most energetic and exotic astrophysical objects, especially neutron stars and black holes, by measuring the linear polarization of astronomical objects as a function of energy, time and, where relevant, position. As the first dedicated polarimetry observatory IXPE will add a new dimension to the study of cosmic sources, enlarging the observational phase space and providing answers to fundamental questions.

IXPE will feature x-ray optics fabricated at NASA/MSFC and gas pixel focal plane detectors provided by team members in Italy (INAF and INFN). This presentation will give an overview of the proposed IXPE mission, detailing the payload configuration, the expected sensitivity, and a typical observing program.